

~~complex comprising an IL-B30 subunit (SEQ ID NO:2 or 4) and a p40 subunit of~~ ^{SMP}
human or murine origin, wherein said antibody immunologically reacts with an
epitope presented by the IL-B30/p40 complex, but is not substantially
immunologically reactive with any epitope presented by either IL-B30 alone or
p40 alone.

52. (New) The binding compound of claim 51, wherein said binding compound is humanized, a monoclonal antibody, single chain antibody, Fv fragment, Fab fragment, Fab' fragment, or F(ab')₂ fragment.

53. (New) The binding compound of claim 51, wherein said binding compound neutralizes at least about 90% of the bioactivity of human IL-B30/p40 complex.

54. (New) The binding compound of claim 51 further comprising a pharmaceutically acceptable carrier or diluent.

55. (New) A binding compound comprising an antigen binding site from an antibody, which specifically binds to a fusion protein comprising an IL-B30 subunit (SEQ ID NO:2 or 4) and a p40 subunit of human or murine origin, wherein said binding compound immunologically reacts with an epitope presented by said fusion protein, but is not substantially immunologically reactive with any epitope presented solely by either IL-B30 alone or p40 alone.

56. (New) The binding compound of claim 55, wherein said binding compound is humanized, a monoclonal antibody, single chain antibody, Fv fragment, Fab fragment, Fab' fragment, or F(ab')₂ fragment.

57. (New) The binding compound of claim 55, wherein said binding compound neutralizes at least about 90% of the bioactivity of said fusion protein.

58. (New) The binding compound of claim 55 further comprising a

pharmac utically acceptable carrier or diluent.

59. (New) A method of producing an immunocomplex of antigen:binding compound, comprising contacting a mammalian p40/IL-B30 complex with a binding compound of claim 51, thereby allowing said immunocomplex to form.

60. (New) The method of claim 59, wherein said binding compound is admixed with a pharmaceutically acceptable carrier or diluent.

61. (New) A method of producing an immunocomplex of antigen:binding compound, comprising contacting a mammalian p40/IL-B30 complex with a binding compound of claim 55, thereby allowing said immunocomplex to form.

62. (New) The method of claim 61, wherein said binding compound is admixed with a pharmaceutically acceptable carrier or diluent.

RESTRICTION REQUIREMENT

The Examiner restricted the application into 14 separate inventions:

I. Claims 1-4, drawn to a composition comprising a plurality of distinct segments of IL-12 p40, and a plurality of distinct segments of IL-B30, and a kit, classified in class 514, subclass 2.

II. Claims 5-12, drawn to a nucleic acid, a cell comprising said nucleic acid, a kit comprising said nucleic acid, Class 536, subclass 23.5, Class 435, subclasses 6, 69.1, 320.1, and 252.3.

III. Claim 13, drawn to an antagonist of IL-12 p40/IL-B30, classified in Class 514, subclass 2.

IV. Claims 14-16 and 19, drawn to a binding compound comprising an antigen binding site, and a kit thereof, and a composition thereof, classified in Class 530, subclasses 387.1, 387.9, 388.23, 389.2, and class 424, subclasses 139.1, 145.1, and 158.1.

V. Claims 17-18, drawn to a method of producing an antigen:antibody complex, classified in Class 435, subclass 7.2.

VI. Claims 20-28, drawn to a method of modulating physiology or development of a cell or a tissue, comprising contacting said cell with a composition of claim 1, classified in Class 514, subclasses 15-16.

VII. Claim 20, drawn to a method of modulating physiology or development of a cell or a tissue, comprising contacting said cell with an antagonist of a composition of claim 1, classified in Class 424, subclass 184.1.

VIII. Claims 29-30, drawn to a method of increasing the secretion of IL-B30 or IL-12 p40, classified in Class 424, subclass 184.1.

IX. Claims 31-32, drawn to a method of screening for a receptor which binds the composition of claim 3, classified in Class 435, subclass 7.2.

X. Claims 33-49, drawn to a method of modulating the inflammatory response, comprising an agonist of mammalian IL-B30 protein, wherein said modulating is increasing the response, classified in Class 424, subclasses 145.1 and 158.1 and class 514, subclass 2.

XI. Claims 33-49, drawn to a method of modulating the inflammatory response, comprising an agonist of mammalian IL-B30 protein, wherein said modulating is decreasing the response, classified in Class 424, subclasses 145.1 and 158.1 and class 514, subclass 2.

XII. Claims 33-40, drawn to a method of modulating the inflammatory response, comprising an antagonist of mammalian IL-B30 protein, wherein said modulating is increasing the response, classified in Class 424, subclasses 145.1 and 158.1 and 514, subclass 2.

XIII. Claims 33-40, drawn to a method of modulating the inflammatory response, comprising an antagonist of mammalian IL-B30 protein, wherein said modulating is decreasing the response, classified in Class 424, subclasses 145.1 and 158.1 and class 514, subclass 2.

XIV. Claim 50, drawn to a method of inducing proliferation of memory T-cells by administering IL-B30 or an antagonist thereof, classified in class 514, subclass 2.

For groups I, IV, V, VI, and VII, the Examiner required election of a distinct number of segments of IL-12p40, a distinct number of segments of IL-B30, a distinct number of amino acids making up each segment of IL-12p40, and a distinct number of amino acids making up each segment of IL-B30 (page 4 of Office Action).

Applicants provisionally elect, with traverse, Group IV, whose claims are drawn to a binding compound comprising an antigen binding site, and a kit thereof, and a composition thereof.

Applicants traverse the Restriction Requirement. Applicants request that the claims encompassed by Groups IV and V be rejoined and examined together. Group V relates to a method of producing an antigen:antibody complex comprising contacting IL-12p40/IL-B30 with an antibody of Group IV.

Thus, Group V is a method of using the composition of Group IV to produce an antigen:antibody complex. A search of the novelty of the binding compositions of Group IV will yield information regarding the method of producing an antibody:antigen complex of Group V using the binding composition of Group IV. Therefore, Applicants request that Groups IV and V, Claims 14-19,